Math 3 Unit 3

**Objective**: To identify end behavior of polynomial functions algebraically and graphically.

|  |  |  |  |
| --- | --- | --- | --- |
| **Degree of Polynomial** | **Leading Coefficient** | **Graphically** | **Description** |
| **Even** | **Positive** |  |  |
| **Even** | **Negative** |  |  |
| **Odd** | **Positive** |  |  |
| **Odd** | **Negative** |  |  |

**Describe the degree and leading coefficient of the polynomial function. Then describe the end behavior of the graph.**

1)

The degree is \_\_\_\_\_\_\_\_\_ and the leading coefficient is \_\_\_\_\_\_\_\_\_.

**\_\_\_\_\_\_**

**\_\_\_\_\_\_**

2)

The degree is \_\_\_\_\_\_\_\_\_ and the leading coefficient is \_\_\_\_\_\_\_\_\_.

**\_\_\_\_\_\_**

**\_\_\_\_\_\_**

3)

The degree is \_\_\_\_\_\_\_\_\_ and the leading coefficient is \_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_

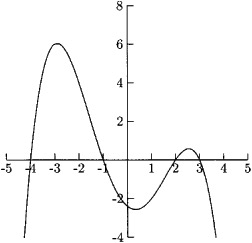
**\_\_\_\_\_\_**

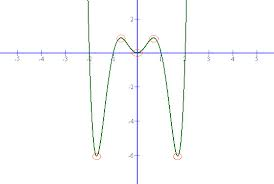
4)

The degree is \_\_\_\_\_\_\_\_\_ and the leading coefficient is \_\_\_\_\_\_\_\_\_.

**\_\_\_\_\_\_**

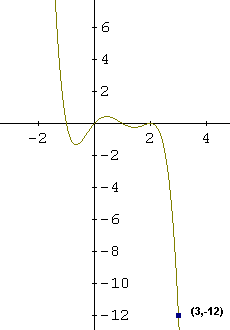
**\_\_\_\_\_\_**

**Describe the end behavior of the graph. Then describe the degree and leading coefficient of the polynomial function.**

5)

**\_\_\_\_\_\_ \_\_\_\_\_\_**

The degree is \_\_\_\_\_\_\_\_\_ and the leading coefficient is \_\_\_\_\_\_\_\_\_.



6)

**\_\_\_\_\_\_ \_\_\_\_\_\_**

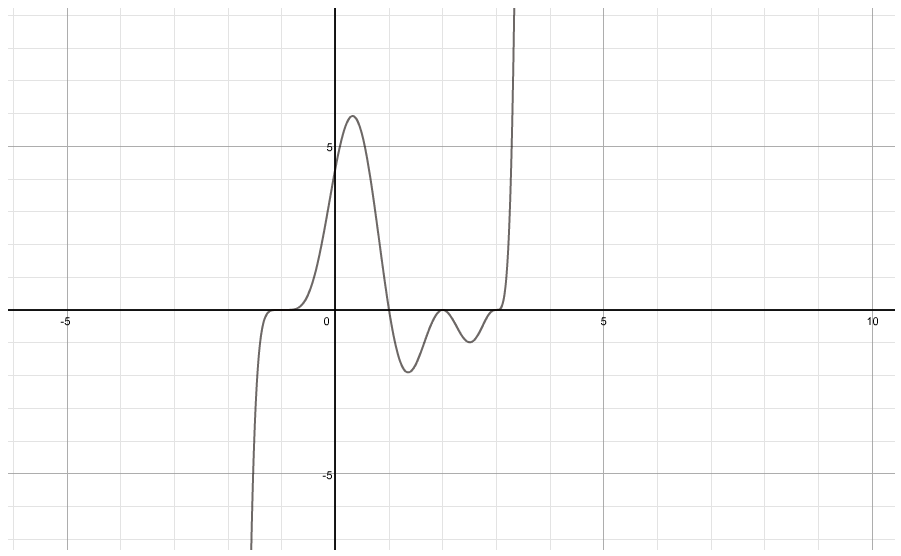
The degree is \_\_\_\_\_\_\_\_\_ and the leading coefficient is \_\_\_\_\_\_\_\_\_.

7)

**\_\_\_\_\_\_ \_\_\_\_\_\_**

The degree is \_\_\_\_\_\_\_\_\_ and the leading coefficient is \_\_\_\_\_\_\_\_\_.

8)



**\_\_\_\_\_\_ \_\_\_\_\_\_**

The degree is \_\_\_\_\_\_\_\_\_ and the leading coefficient is \_\_\_\_\_\_\_\_.

**Use what you know about end behavior to match the polynomial function with its graph.**

9)

10)

11)

### 